

OSBORNE LANDFILL SITE
ADMINISTRATIVE RECORD FILE *
INDEX OF DOCUMENTS

I. SITE IDENTIFICATION

1. Memorandum to file, re: Investigation of Osborne Site, 4/18/80. P. 100001-100002. Photographs of the site are attached.
2. Technical Direction Document, prepared by Ecology and Environment, Inc., 5/22/81. P. 100003-100003.
3. U.S. EPA Potential Hazardous Waste Site Identification, 6/14/81. P. 100003a-100003a.
4. Technical Direction Document, prepared by Ecology and Environment, Inc., 6/16/81. P. 100004-100017.
The following are attached:
 - a) an Acknowledgment of Completion for TDD form;
 - b) a handwritten revised summary;
 - c) a Model Worksheet form;
 - d) six groundwater data sheets;
 - e) a handwritten model justification.
5. Memorandum to Mr. Gary Bryant, U.S. EPA, from Mr. Ron Naman, Ecology and Environment, Inc., re: Comments on Sampling of the Osborne Landfill, 6/30/81. P. 100018-100018.
6. File Inventory List, 7/8/81. P. 100019-100060. The following are attached:
 - a) a U.S. Government Bill of Lading;
 - b) a U.S. Government Freight Waybill;
 - c) seven Volatile Organics LSS forms;

* Administrative Record File available 8/22/89, updated 9/18/90, 10/17/90, 8/5/97, 8/29/97, 1/14/98, and 9/11/98.

Note: Company or organizational affiliation is identified in the index only when it appears in the file.

- d) seven Organics Characterization LSS;
 - e) handwritten sample notes;
 - f) two Chain of Custody Records;
 - g) a handwritten packing list;
 - h) six Quality Control reports;
 - i) an Inorganics Analysis data sheets for sample numbers 17C-1M, 17C-2M, 17C-3M, 17C-4M, 17C-5M, 17C-6M and 17C-M7;
 - j) five Inorganics Quality Assurance sheets.
- 7. Official Osborne Waste Site Sampling Data for Sample Numbers 17C-3, 17C-4, 17C-5, and 17C-6, 7/16/81. P. 100061-100064.
- 8. Memorandum to Mr. R. W. Schrecongost, U.S. EPA, from Mr. Gary Bryant, U.S. EPA, re: Dump Site Investigation, Trip Report, 7/16/81. P. 100065-100067. A sketch of Sample Points is attached.
- 9. Organics Analysis Data Sheets for Sample Numbers 17C-1, 17C-2, 17C-3, 17C-4, 17C-5, 17C-6, and 17C-7, 7/22/81. P. 100068-100105. A history of the Osborne Dump is attached.
- 10. U.S. EPA Site Inspection Report, 7/29/81. P. 100106-100119. The following are attached:
 - a) a site location map;
 - b) an Application for a Waste Disposal Permit;
 - c) a Ground Water Module sheet;
 - d) a Technical Direction Document.
- 11. Report: Hazard Ranking System Model of Osborne Dump, prepared by Ecology and Environment, Inc., 7/29/82. P. 100120-100175.
- 12. U.S. EPA Site Inspection Report, 11/17/81. P. 100176-

100194. The following are attached:

- a) a Resource Conservation and Recovery Act (RCRA) Checklist for Surface Impoundments;
- b) a memorandum regarding a trip report to the site;
- c) a sketch of sample points;
- d) Official Data Sheets for Sample Number 17C-3, 17C-4, 17C-5, and 17C-6;
- e) a map of the Grove City Quadrangle.

13. U.S. EPA Site Inspection Report, 7/2/82. P. 100195-100200. A site location map is enclosed.

14. Memorandum to Mr. Steve Jarvella from Mr. Lanny Doan, and Mr. Bruce Doremus, re: Osborne Dump Sampling, 11/10/82. P. 100201-100204. A site map and two Chain of Custody records are attached.

15. Memorandum to Mr. Daniel K. Donnelly, U.S. EPA, from Mr. Rick Dreisch, U.S. EPA, re: Analysis of water samples from sample series 821108-11-13 for volatile organic compounds, 12/6/82. P. 100205-100243. The following are attached:

- a) Volatile sample results for Sample Numbers 822108-12 and 8211-01-13;
- b) a Quality Assurance Summary form;
- c) a memorandum regarding soil samples analyzed by GC/MS for volatile organic compounds;
- d) Volatiles sample results for Sample Number 821108-02, 821108-03, 821108-04, 821108-07, and 821108-09;
- e) a Quality Assurance Summary;
- f) a memorandum regarding the organic compound sample results;
- g) a list of sample descriptions;
- h) a list of Base/Neutral Extractable Priority

Pollutant Compound Detection Limits;

- i) Base/Neutral Extractable Priority Pollutant Compounds for Sample Numbers 821108-11, 821108-12, and 821108-13;
 - j) twenty pages of Base/Neutral and Acid sampling results;
 - k) Surrogate Spike Recoveries for Sample Numbers 821108-11, 821108-12, and 821108-13;
 - l) a Quality Control Sheet;
 - m) two Chain of Custody Records;
 - n) two Technical Direction Document forms;
 - o) an Acknowledgement of Completion form;
 - p) two Federal Express airbills receipts.
16. Memorandum to Ms. Margot Hunt, U.S. EPA, from Mr. Joseph P. Dugandzic, U.S. EPA, re: Laboratory Analyses of water samples from Wells 1-3, 12/27/82. P. 100244-100244.
17. Memorandum to Mr. Steve Jarvella, U.S. EPA, from Mr. Daniel K. Donnelly, re: Osborne Data Reports, 1/5/83. P. 100245-100249. The following are attached:
- a) a list of sample numbers and descriptions;
 - b) a memorandum regarding the metals results of the Osborne Dump Sample;
 - c) metals results for Sample Numbers 8921108-06, 8921108-07, 821108-08, 821108-09, 821108-10, 821108-01, 821108-02, 821108-03, 821108-04, and 821108-05.
18. Memorandum to Mr. Daniel K. Donnelly, U.S. EPA, from Ms. S. Rosemary Kayser, U.S. EPA, re: Pesticide and PCB Analysis of Osborne Dump, 1/10/83. P. 100250-100252. The Pesticide/PCBs results for Sample Numbers 821108-02, 821108-03, 821108-04, 821108-05, 821108-06, 821108-07, 821108-08, 821108-09, 821108-10, 821108-11, 821108-12, 821108-12, 821108-13, Blank, Spike, Sox Blanks, and Sox Spike are attached.

19. Letter to Mr. Russell H. Wyer from Mr. James A. Rogers, Skadden, Arps, Slate, Meagher, & Flom, re: Transmittal of comments on the Osborne Site's inclusion on the proposed National Priorities List, 2/2/83. P. 100253-100264. The comments are attached.
20. Memorandum to file from Mr. Edward Shoener, U.S. EPA, re: Site Inspection of August 17, 1983. P. 100265-100267. A memorandum regarding the site inspection of the Osborne Dump on June 9, 1983 is attached.
21. Inorganics Analysis Data Sheet for Sample Numbers 17C-3M, 17C-4M, 17C-5M, 17C-6M, 17C-7M, 17C-3, 17C-4, 17C-5, 17C-6, and 17C-7. P. 100268-100299. A handwritten note on items discussed at the meeting is attached.
22. A National Priorities List Site Informational Sheet for Osborne Landfill, prepared by the U.S. EPA, (undated). P. 100300-100300.

II. REMEDIAL ENFORCEMENT PLANNING

1. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Robert W. Teets, Cooper Industries, Inc., re: Review of the Draft Remedial Investigation (RI) Report for the Osborne Landfill Site, 7/31/89. P. 200001-200009. The following are attached:
 - a) a handwritten data sheet for the calculation of the geometric mean of PCB concentrations;
 - b) a graph of the lognormal probability distribution;
 - c) a handwritten sheet of calculations;
 - d) a facsimile cover sheet.
2. Letter to Mr. Michael Steiner, Pennsylvania Department of Environmental Resources (PADER), from Mr. Edward Shoener, U.S. EPA, re: A "sumphole" at Osborne Landfill, 11/28/83. P. 200010-200010.
3. Report: Annual Report to Shareholders, Cooper Industries, 1988. P. 200011-200075.
4. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Robert W. Teets, Cooper Industries, Inc., re: Good faith offer to perform remedial design/remedial action for Osborne Landfill, 10/27/89. P. 200076-200104. The Remedial Action Plan is attached.
5. Letter to Mr. Robert W. Teets, Cooper Industries, Inc., from Mr. Abraham Ferdas, U.S. EPA, re: 104(e) request for information, 11/16/89. P. 200105-200107.
6. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Robert W. Teets, Cooper Industries, Inc., re: 104(e) response, 12/6/89. P. 200108-200110.
7. Letter to Mr. Stephen R. Wassersug, U.S. EPA, from Mr. Matthew P. Drain, General Electric, 12/12/89. P. 200111-200111.
8. Letter to Ms. Patricia Tan, U.S. EPA, from Mr. John Gorgol, EBASCO Services, Inc., re: Contaminated soils and debris, 1/20/89. P. 200112-200120.

9. Letter to Mr. Stephen R. Wassersug, U.S. EPA, from Mr. Robert W. Teets, Cooper Industries, Inc., re: Communication problems, 4/9/90. P. 200121-200122.
10. Letter to Mr. Keith McDougall from Mr. Frank Vavra, U.S. EPA, re: Telephone conversation on April 10, 1990, 4/16/90. P. 200123-200125. An article concerning landowner defense is attached.
11. Letter to Mr. Robert W. Teets from Mr. Frank Vavra, U.S. EPA, re: Gate at the site, 4/16/90. P. 200126-200127.
12. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Richard H. Uber, Cooper Industries, Inc., re: Damaged gate, 5/16/90. P. 200128-200129. A photo is attached.
13. Letter to Mr. Robert W. Teets from Mr. Stephen R. Wassersug, U.S. EPA, re: Review of remedy, 5/17/90. P. 200130-200132.

III. REMEDIAL RESPONSE PLANNING

1. Report: Remedial Action Master Plan, Osborne Site, Pine Township, Mercer County, Pennsylvania, prepared by NUS Corporation, 3/83. P. 300001-300120. References are listed on pages 300090-300092.
2. Report: Summary of Surface Waste Sampling Operations at the Osborne Landfill, prepared by Fred C. Hart Associates, Inc., 5/11/83. P. 300121-300142.
3. Report: Osborne Site Remedial Investigation Report, prepared by Fred C. Hart Associates, Inc., 6/84. P. 300143-300303. References are listed on pages 300270-300273. A report entitled "Final Evaluation Report, Review of Remedial Investigation Report" is attached.
4. Report: A Field Trip Report for Osborne Disposal, prepared by NUS Corporation, 9/11/86. P. 300304-300632.
5. Memorandum to Ms. Pat [sic] Tan, U.S. EPA, from Mr. H. Ronald Preston, U.S. EPA, re: Recommendations for the RI made by the Bioassessment Task Group, 10/14/86. P. 300633-300634.
6. Report: Second Draft Feasibility Study Work Plan, Osborne Site, prepared by Dynamac Corporation, 6/18/87. P. 300365-300769. References are listed on pages 300735-300736.
7. Report: Draft Evaluation Report, Review of the RPs Feasibility Study Work Plan (Second Draft), prepared by Ebasco Services Incorporated, 8/3/87. P. 300770-300784.
8. Memorandum to Ms. Pat [sic] Tan, U.S. EPA, from Mr. H. Ronald Preston, U.S. EPA, re: Changes requested in the environmental assessment of the draft Work Plan, 2/25/88. P. 300785-300786.
9. Letter to Mr. Frank Simunic, Cooper Industries, Inc. [sic], from Ms. Patricia Tan, U.S. EPA, re: Transmittal of responses to comments made on the RI/Feasibility Study (FS) Work Plan and Field Operations Plan, 7/15/88. P. 300787-300788. A Memorandum of the Call is attached.

10. Letter to Mr. Abraham Ferdas, U.S. EPA, from Mr. Stephen D. Von Allmen, U.S. Department of Health & Human Services, re: Transmittal of the Draft Preliminary Health Assessment for review, 10/13/88. P. 300789-300793. The Draft Preliminary Health Assessment is attached.
11. Letter to Ms. Patricia Tan, U.S. EPA, from Mr. John Gorgol, Ebasco Services Inc., re: Soil treatment alternatives at the Osborne Landfill Site, 1/20/89. P. 300794-300808. The following are attached:
 - a) a table entitled "Public Health Assessment, Adverse Health Effects of Contaminated Site Soils";
 - b) a table entitled "Treatment Levels for Treatability Variances for Contaminated Soil and Debris, Organics";
 - c) a table entitled "Superfund Guidelines on Response Actions for PCB-Contaminated Soil";
 - d) a map of the Disposal Area Boundary at the Osborne Landfill Site;
 - e) a Routing and Transmittal Slip.
12. Letter to Ms. Patricia Tan, U.S. EPA, from Mr. John F. Gorgol, Ebasco Services Inc., re: Potential remedial alternatives for the Osborne Landfill Site, 3/30/89. P. 300809-300815. A Summary of Potential Alternatives is attached.
13. Report: Draft Remedial Investigation Report (Volume I of III), prepared by NUS Corporation, 5/89. P. 300816-301042. References are listed on pages 301040-301042.
14. Report: Draft Remedial Investigation Report (Volume II of II), prepared by NUS Corporation, 5/89. P. 301043-301427.
15. Report: Draft Remedial Investigation Report (Volume III of III), prepared by NUS Corporation, 5/89. P. 301428-301687.
16. Letter to Ms. Patricia Krantz, U.S. EPA, from Mr. Eric L. Blischke, Ebasco Services, Inc., re: Transmittal of the NUS Resubmittal Data Validation package, 7/20/89. P. 301688-301689. An envelope is attached.

17. Report: Draft Feasibility Study Report, prepared by NUS Corporation, 7/89. P. 301690-302161.
18. List of Exposure Pathways and Receptors, (undated). P. 302162-302187. The following are attached:
 - a) a table entitled "Comparison of Existing Surface Water Data and ARAR's";
 - b) a map of Surface Water Sampling Results;
 - c) a table entitled "Comparison of Existing Groundwater Data and ARAR's";
 - d) a report entitled "Osborne Landfill Site, Grove City, Pennsylvania, RI/FS Scoping Meeting".
19. Table: Site Associated Contaminants Exceeding Pertinent ARARs in Onsite Groundwaters, (undated). P. 302188-302193. A table entitled "Site-Associated Contaminants Exceeding Pertinent ARARs In Onsite and Offsite Surface Waters" and a table entitled "Site-Associated Contaminants Exceeding Pertinent ARARs in Study Area Offsite Groundwater" are attached.
20. Table: Hazard Indices and Incremental Cancer Risks for Exposures to Contaminated Foundry Sands, Mine Spoils, and Soils, (undated). P. 302192-302199. The following are attached:
 - a) a table entitled "Hazard Indices and Incremental Cancer Risks for Exposure to Contaminated Surface Water During Recreational Activities";
 - b) a table entitled "Hazard Indices and Incremental Cancer Risks Associated With the Domestic Use of Groundwater Within the Site";
 - c) a table entitled "Hazard Indices and Incremental Cancer Risks Associated With the Domestic Use of Groundwater Outside of the Site Boundary";

- d) a table entitled "Hazard Indices and Incremental Cancer Risks for Exposure to Contaminated Fugitive Dusts Emanating From Surface Soils, Foundry Sands, and Mine Spoils";
 - e) a table entitled "Hazard Indices and Incremental Cancer Risks for Dermal Contact With Contaminated Onsite and Offsite Sediments".
- 21. Report section: Identification and Screening, prepared by the U.S. EPA, (undated). P. 302200-302217.
 - 22. Map of the Osborne Landfill Site, (undated). P. 302218-302218.
 - 23. Table: Summary of Alternatives and Costs, Osborne Landfill Site, Grove City, Pennsylvania, (undated). P. 302219-302219.
 - 24. Handwritten Notes, re: Telephone numbers, (undated). P. 302220-302220.
 - 25. Map of Approximate Limits of Study Area, Osborne Landfill Site, (undated). P. 302221-302221.
 - 26. Map of Conceptual Diagram of Contaminant Migration Routes, (undated). P. 302222-302222.
 - 27. Routing and Transmittal Slip, re: Contractor's ability to do the PRAP [sic], (undated). P. 302223-302223.
 - 28. Map of Site Location, Osborne Landfill Site, (undated). P. 302224-302224.
 - *29. Letter to Mr. Frank Kocivar from Mr. Rudy L. Davis, re: List of waste materials, 8/18/67. P. 302225-302234. A report entitled "Feasibility Report for the Cooper-Bessemer Landfill" is attached.
 - 30. Report: Draft Feasibility Study Addendum, prepared by EBASCO Services Inc., 8/89. P. 302235-302296.
 - 31. Report: Final Remedial Investigation Report, Volume I-

* This document is located in the confidential portion of the Administrative Record File at U.S. EPA Region III, Philadelphia, PA.

- III, Osborne Landfill, Grove City, Pennsylvania, 8/89.
P. 302297-303222. References are listed on pages
302527-302529.
32. Report: Superfund Program Proposed Plan, EPA Region III, prepared by U.S. EPA, 8/89. P. 303223-303245.
 33. Report: Summary of Cooper Industries, Inc. Involvement in the Investigation of the Osborne Landfill Remedial Investigation/Feasibility Study, prepared by Cooper Industries, Inc., 9/1/89. P. 303246-303609.
References are listed on pages 303508-303509.
 34. Report: Processes, Procedures, and Methods to Control Pollution from Mining Activities, prepared by U.S. EPA, 10/73. P. 303610-303617.
 35. Letter to Mr. Thomas C. Voltaggio, U.S. EPA, Mr. Dwight D. Worley, PADER, and Mr. Edgar A. Bircher, Cooper Industries, Inc., from Mr. Edward L. McDougall and Ms. Janet L. McDougall, re: Consent to enter premises, 8/11/83. P. 303618-303618.
 36. Report: Design of Bulkheads for Controlling Water in Underground Mines, prepared by U.S. Department of Interior, 1985. P. 303619-303659.
 37. Paper: "Gravel Bulkheads for Confining Hydraulic Backfilling of Abandoned Underground Coal Mines," presented at Society of Mining Engineers of AIME prepared and presented by M.S. Van Dyke, 10/16-18/85. P. 303660-303662.
 38. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Robert W. Teets, Cooper Industries, Inc., re: Review comments for the RI, 7/31/89. P. 303663-303667.
 39. Letter to Mr. Thomas C. Voltaggio, U.S. EPA, from Mr. Robert W. Teets, Cooper Industries, Inc., re: Concerns over RI and FS reports, 8/18/89. P. 303668-303669.
 40. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Michael J. O'Brien, Cooper Industries, Inc., re: Request for authorization to implement a sampling program, 9/19/89. P. 303670-303685. A letter concerning a proposal for groundwater sampling and Analytical Results of Residential Well Sampling are attached.
 41. Report: Appendices A - F, prepared by Fred C. Hart

Associates, Inc., 10/89. P. 303686-303876.

42. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Robert W. Teets, Cooper Industries, Inc., re: Comments on the U.S. EPA proposed plan, 10/20/89. P. 303877-303911. A letter concerning corrections and the comments are attached.
43. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Jeffrey O. Cerar, Squire, Sanders, and Dempsey, re: Supplemental comments on the proposed plan, 10/23/89. P. 303912-303914.
44. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Robert W. Teets, Cooper Industries, Inc., re: Good faith offer for Remedial Design/Remedial Action (RD/RA), 10/27/89. P. 303915-303946. The Remedial Action plan is attached.
45. Letter to Mr. Roy Shrock, U.S. EPA, from Mr. Michael J. O'Brien, Cooper Industries, Inc., re: U.S. EPA "preferred alternative", 11/6/89. P. 303947-303948.
46. Memorandum to Mr. Frank Vavra, U.S. EPA, from Mr. Daniel K. Donnelly, U.S. EPA, re: Analytical reports for Osborne Landfill, 11/9/89. P. 303949-303995. Three organic reports are attached.
47. Report: Final Feasibility Study Report, (Volume I of II), prepared by EBASCO Services Inc., 12/89. P. 303996-304287.
48. Report: Final Feasibility Study Report (Volume II of II), prepared by EBASCO Services Inc., 12/89. P. 304288-304598.
49. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Mark D. Gorman, for Mr. Donald J. Benczkowski, PADER, re: Summary of State ARAR's 12/7/89. P. 304599-304602.
50. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Roy Wattras, Cooper Industries, Inc., re: Requested response, 12/7/89. P. 304603-304610. The response and a letter regarding the RI/FS are attached.
51. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Jeffrey

- O. Cerar, Squire, Sanders and Dempsey, re:
Negotiations for a consent agreement, 12/15/89.
P. 304611-304611.
52. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Jeffrey O. Cerar, Squire, Sanders and Dempsey, re: Comments on ARAR's, 1/2/90. P. 304612-304613.
53. Letter to Mr. Gene Harris, U.S. EPA, from Mr. Frank Vavra, U.S. EPA, re: Technical assistant, 2/13/90. P. 304614-304615.
54. Memorandum to Ms. Anita Miller and Ms. Alyce Fritz, U.S. EPA, from Mr. Jeffrey Pike, U.S. EPA, re: Status of EPA activities, 2/16/90. P. 304616-304616.
55. Letter to Mr. Michael O'Brien, Cooper Industries, Inc., from Mr. Kenneth B. Andromalos, re: Information on the installation of a temporary deep mine bulkhead, 2/20/90. P. 304617-304640. A report on subsidence control by high volume grouting and a letter concerning technical information on deep mine bulkheads are attached.
56. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Michael J. O'Brien, Cooper Industries, Inc., re: Information on mine void bulkhead installation, 2/26/90. P. 304641-304665. A letter concerning temporary deep mine bulkhead proposed remediation methods, a report on subsidence control by high volume grouting, and a letter concerning a request for information are attached.
57. Letter to Cooper Industries, Inc., from Mr. Kenneth B. Andromalos, Geo-Con Inc., re: Three technical papers for references, 2/28/90. P. 304666-304719. The papers are attached.
58. Memorandum to Mr. Frank Vavra, U.S. EPA, from Mr. Scott A. Fritzinger, U.S. EPA, re: Osborne Landfill Slurry Wall Alternative, 3/9/90. P. 304720-304721.
59. Memorandum to Mr. Frank Vavra, U.S. EPA, from Mr. Walter E. Grube, U.S. EPA, re: Comments on bulkhead proposal from Geo-Con, 4/4/90. P. 304722-304723.
60. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Robert W.

Teets, Cooper Industries, Inc., re: Technical report, 4/9/90. P. 304724-304725.

61. Handwritten notes on 4/16/90 conversation with Dr. Kimborough, U.S. EPA PCB expert. P. 304726-304727. A letter regarding Weston comments on the Evaluation of the Toxicology of PCB's report is attached.
62. Letter to Mr. Robert W. Teets, Cooper Industries, Inc., from Mr. Frank Vavra, U.S. EPA, re: Weston review of reports, 4/24/90. P. 304728-304728.
63. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Michael J. O'Brien, Cooper Industries, Inc., re: Potential design and construction problems, 5/10/90. P. 304729-3304735. A letter regarding estimate of costs to be incurred is attached.
64. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Michael J. O'Brien, Cooper Industries, Inc., re: Summary letter from Mr. Ken Miller, 5/22/90. P. 304736-304750. The letter is attached.
65. Letter to Mr. Thomas Voltaggio, U.S. EPA, from Ms. Bridget Hofman, PADER, re: Delegation of functions, 7/16/90. P. 304751-304763. A memorandum concerning department participation in the Federal NPL program and a memorandum concerning NPL enforcement sites are attached. P. 304751-304763.
66. Memorandum to Mr. Frank Vavra, U.S. EPA, from Mr. Roy L. Smith, U.S. EPA, re: EPA assessment of cancer risk, 5/24/90. P. 304764-304766.
67. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Donald J. Benczkowski, PADER, re: ARAR's for Osborne Landfill Site, 7/17/90. P. 3304767-304768.
68. Letter to Mr. Thomas Voltaggio, U.S. EPA, from Ms. Bridget Hofman, PADER, re: Submittal of ROD, 7/24/90. P. 304769-304770.
69. Letter to Mr. Donald Becker, PADER, from Mr. Frank Vavra, U.S. EPA, re: Record of Decision for Osborne Landfill, 8/24/90. P. 304771-304772. A letter regarding review of the ROD is attached.
70. Report: Osborne Landfill EPA Response to Comments

Submitted by Cooper Industries and Their Contractors,
(undated). P. 304773-304823.

71. Report: Appendix E - Subsidence Control by High Volume Grouting, prepared by Mr. Kenneth B. Andromalos and Mr. Christopher R. Ryan, Geo-Con Inc., (undated). P. 304824-304841.
72. Declaration for the Record of Decision, Osborne Landfill Site, 9/28/90. P. 304842-304932.
73. Osborne Landfill Responsiveness Summary, (undated). P. 304933-304996.
74. Memorandum to Mr. Frank Vavra, U.S. EPA, from Mr. Robert Burr, U.S. Fish and Wildlife Service, re: Biological Technical Assistance Group (BTAG) review and comments concerning the July 27, 1994, Focused RI Report for Operable Unit 2 (OU2), 9/21/94. P. 304997-304997.
75. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Robert Kimball, PADER, re: Review and comments concerning the July 25, 1995, Focused RI Report for OU2, 10/11/95. P. 304998-304999.
76. Letter to Mr. Richard Weinzierl, Cooper Industries (Cooper), from Mr. Frank Vavra, U.S. EPA, re: Comments concerning the July 25, 1995, Draft Focused RI Report for OU2, 10/25/95. P. 305000-305003.
77. Letter to Mr. Richard Weinzierl, Cooper, from Mr. Frank Vavra, U.S. EPA, re: Comments from EPA's RCRA section concerning the October 25, 1995, Draft Focused RI, 11/15/95. P. 305004-305005.
78. Report: Final Focused Remedial Investigation Report, Operable Unit 2, Osborne Landfill Site, Pine Township, Mercer County, Pennsylvania, Volume I, prepared by Civil & Environmental Consultants, Inc. (CEC), 12/29/95. P. 305006-305087. A December 29, 1995, transmittal letter to Mr. Frank Vavra, U.S. EPA, from Mr. Jeffrey Woodcock and Mr. Kenneth Miller, CEC, and a December 29, 1995, letter to Mr. Frank Vavra, U.S. EPA, from Mr. Jeffrey Woodcock and Mr. Kenneth Miller, CEC, regarding a response to EPA comments, are attached.
79. Report: Final Focused Remedial Investigation Report,

Operable Unit 2, Osborne Landfill Site, Pine Township, Mercer County, Pennsylvania, Volume II, prepared by CEC, 12/29/95. P. 305088-305497.

80. Report: Final Focused Remedial Investigation Report, Operable Unit 2, Osborne Landfill Site, Pine Township, Mercer County, Pennsylvania, Volume III, prepared by CEC, 12/29/95. P. 305498-305802.
81. Letter to Mr. Richard Weinzierl, Cooper, from Mr. Frank Vavra, U.S. EPA, re: Review of the December 29, 1995, Response to EPA comments, and approval of the Revised Draft RI Report on the condition that this document is attached to the RI Report, 1/26/96. P. 305803-305805.
82. Letter to Mr. Richard Weinzierl, Cooper, from Mr. Frank Vavra, U.S. EPA, re: Comments on the Draft Focused FS Report outline, 4/9/96. P. 305806-305810. "A Guide to Developing Superfund Proposed Plans" is attached.
83. Letter to Mr. Richard Weinzierl, Cooper, from Mr. Frank Vavra, U.S. EPA, re: Review and approval of the March 29, 1996, Final Work Plan for the OU2 Risk Assessment (RA), 4/9/96. P. 305811-305811.
84. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Robert Kimball, PADEP, re: Identification of the Commonwealth's Applicable or Relevant and Appropriate Requirements (ARARs), 5/7/96. P. 305812-305813.
85. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Robert Kimball, PADEP, re: Review and comments concerning the April 25, 1996, Risk Assessment, 5/22/96. P. 305814-305815.
86. Letter to Mr. Richard Weinzierl, Cooper Industries, from Mr. Frank Vavra, U.S. EPA, re: EPA's final comments on the Risk Assessment, and extension of the due date for the revised Risk Assessment Report to June 14, 1996, 5/31/96. P. 305816-305822.
87. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Robert Kimball, PADEP, re: Review and comments concerning the May 2, 1996, Focused FS for OU2, 6/6/96. P. 305823-305824.
88. Letter to Mr. Frank Vavra, U.S. EPA, from Ms. Christine

Phillips and Mr. Jeffrey Woodcock, CEC, re: Response to EPA and PADEP comments concerning the April 25, 1996, Draft Human Health Risk Assessment for OU2, 6/14/96. P. 305825-205836.

89. Report: Final Human Health Risk Assessment, Operable Unit 2, Osborne Landfill Site, Pine Township, Mercer County, Pennsylvania, prepared by CEC, 6/14/96. P. 305837-306136.
90. Letter to Mr. Richard Weinzierl, Cooper, from Mr. Frank Vavra, U.S. EPA, re: EPA and PADEP comments concerning the Focused FS Report for OU2, 6/24/96. P. 306137-306143.
91. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Robert Kimball, PADEP, re: Review of the June 24, 1996, Response to Comments letter, and approval of the July 11, 1996, Focused Feasibility Study Report, 8/9/96. P. 306144-306144.
92. Letter to Mr. Richard Weinzierl, Cooper, from Mr. Frank Vavra, U.S. EPA, re: Approval of the June 14, 1996, Risk Assessment, 9/27/96. P. 306145-106145.
93. Letter to Mr. Richard Weinzierl, Cooper, from Mr. Frank Vavra, U.S. EPA, re: Approval of the July 11, 1996, FS, 9/27/96. P. 306146-106146.
94. Report: Final Focused Feasibility Study, Operable Unit 2, Osborne Landfill Site, Pine Township, Mercer County, Pennsylvania, prepared by CEC, 9/27/96. P. 306147-306261.
95. Proposed Plan, Osborne Landfill OU2 Site, 8/97. P. 306262-306285.
96. Letter to Mr. Michael O'Brien, Cooper, from Mr. Frank Vavra, U.S. EPA, re: EPA Statement of Work review for Osborne Landfill OU4, 1/31/92. P. 306286-306293.
97. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Michael O'Brien, Cooper, re: Notification of schedule for the Pre-Design activities at the site, beginning on March 11, 1992, 3/6/92. P. 306294-306294.
98. Letter to Mr. Michael O'Brien, Cooper, from Mr. Frank

- Vavra, U.S. EPA, re: Review and comments concerning the March 9, 1992, memo from Ms. Debora Thompson, CEC, regarding the feasibility of implementing the pump and treat alternative selected for the Clarion aquifer, Osborne Landfill OU4, 3/19/92. P. 306295-306296.
99. Letter to Mr. Michael O'Brien, Cooper, from Mr. Frank Vavra, U.S. EPA, re: Notification that the water from the planned pump test for the Clarion Aquifer can be emptied into the leaching pond if the water is pumped through a spray nozzle before discharge, 4/14/92. P. 306297-306298.
100. Letter to Mr. Michael O'Brien, Cooper, from Mr. Frank Vavra, U.S. EPA, re: Review and comments concerning the August 22, 1992, revised draft Work Plan for OU4, 7/16/92. P. 306299-306323. A June 19, 1992, memorandum to Mr. Frank Vavra, U.S. EPA, from Mr. Mike Ellickson, U.S. EPA, regarding comments concerning the May 14, 1992, draft Quality Assurance Project Plan (QAPP), is attached.
101. Letter to Mr. Frank Vavra, U.S. EPA, from Ms. Debora Thompson and Mr. Kenneth Miller, CEC, re: Response to the hydrogeology section of the July 16, 1992, EPA comments concerning the May 14, 1992, draft QAPP, 8/25/92. P. 306324-30629.
102. Letter to Mr. Frank Vavra, U.S. EPA, from Ms. Debora Thompson and Mr. Kenneth Miller, CEC, re: Response to the July 16, 1992, EPA comments concerning the May 14, 1992, draft QAPP, 9/16/92. P. 306330-306351.
103. Report: Final Health and Safety Plan, Remedial Design Operable Unit 4, Osborne Landfill Site, Grove City, Pennsylvania, prepared by CEC, 9/16/92. P. 306352-306388.
104. Report: Final Revised Work Plan, Remedial Design Operable Unit 4, Osborne Landfill Site, Grove City, Pennsylvania, prepared by CEC, 9/16/92. P. 306389-306486.
105. Memorandum to Mr. Frank Vavra, U.S. EPA, from Mr. E.J. Clugston, U.S. EPA, re: Recommendation for approval of the September 16, 1992, revised QAPP, 10/8/92. P. 306487-306487.

106. Letter to Mr. Michael O'Brien, Cooper, from Mr. Frank Vavra, U.S. EPA, re: Review and comments concerning the September 16, 1992, revised QAPP, and conditional approval of the plan, 10/19/92. P. 306488-306492. The October 8, 1992, approval memorandum from Mr. E.J. Clugston, U.S. EPA, is attached.
107. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Michael O'Brien, Cooper, re: Notification of the proposed drilling and sampling schedule for the OU4 design work at the site, 11/2/92. P. 306493-306494. The proposed schedule of activities is attached.
108. Report: Final Health and Safety Plan, Focused Remedial Investigation, OU2 and OU5, Osborne Landfill Site, Grove City, Pennsylvania, prepared by CEC, 1/29/93. P. 306495-306530.
109. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Gary Poling, re: Transmittal of laboratory results from QA/QC split sampling performed during December 1992 and January 1993 at the site, 2/3/93. P. 306531-306614. The January 20, 1993, data is attached.
110. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Gary Poling, re: Transmittal of summary of the Corps of Engineers' observation of the drilling, installation and sampling of monitoring wells and observation wells at the site from December 7, 1992, to January 8, 1993, 3/25/93. P. 306615-306635. The January 23, 1993, summary is attached.
111. Report: Alternatives Analysis for Design Modification, OU4, Osborne Landfill Site, Grove City, Pennsylvania, prepared by CEC, 4/28/93. P. 306636-306828.
112. Report: Final Quality Assurance Project Plan, Remedial Design, OU4, Osborne Landfill Site, Grove City, Pennsylvania, prepared by CEC, 1/7/93. P. 306829-307068.
113. Report: Final Quality Assurance Project Plan, Focused Remedial Investigation, OU2 and OU5, Osborne Landfill Site, Grove City, Pennsylvania, prepared by CEC, 6/29/93. P. 307069-307316.

114. Report: Final Work Plan, Focused Remedial Investigation, OU2 and OU5, Osborne Landfill Site, Grove City, Pennsylvania, prepared by CEC, 6/29/93. P. 307317-307371. A September 2, 1993, letter to Mr. Frank Vavra, U.S. EPA, from Mr. Michael O'Brien, Cooper, regarding a response to the June 29, 1993, EPA comments is attached.
115. Letter to Mr. Michael O'Brien, Cooper, from Mr. Frank Vavra, U.S. EPA, re: Information concerning the addresses of the owners of the residential wells sampled during the remedial investigation, 9/20/93. P. 307372-307376. The following are attached:
- a) a list of residential wells to be sampled;
 - b) figure, proposed residential well sampling locations;
 - c) a April 14, 1988, list of residential well owners whose permission is needed for sampling;
 - d) figure, residential well sampling locations.
116. Letter to Mr. Thomas Paxton, Pine Township, resident, from Mr. Michael O'Brien, Cooper, re: Information concerning the support needed from Pine Township to sample residential wells near the site, 9/20/93. P. 307377-307387. The following are attached:
- a) a June 23, 1993, ground water sampling excerpt;
 - b) a figure, gallons per well volume;
 - c) a figure, groundwater monitoring data;
 - d) a June 23, 1993, figure, residential well locations.
117. Memorandum to Mr. Frank Vavra, U.S. EPA, from Mr. John Breed, Cooper, re: Results of the residential ground water well sampling, 11/11/93. P. 307388-307389.

118. Facsimile memorandum to Mr. Frank Vavra, U.S. EPA, from Mr. Michael O'Brien, Cooper, re: Transmittal of information concerning the 1993 residential well sampling location, 11/15/93. P. 307390-307392.
119. Letter to Mr. Michael O'Brien, Cooper, from Mr. Frank Vavra, U.S. EPA, re: Response to request to dispose of drill cuttings from the installation of a new drinking water well at the Eickman residence, 11/18/93. P. 307393-307393
120. Letter to Mr. Charles Dininger, resident, from Mr. Michael O'Brien, Cooper, re: Summary of Mr. Dininger's well water sampling on September 28, 1993, 11/22/93. P. 307394-307395. An October 27, 1993, laboratory analyses report is attached.
121. Report: Memorandum, Results of Geophysical Survey of Monitoring Wells and Residential Well Sampling, OU2 and OU5, Osborne Landfill Site, Grove City, Pennsylvania, prepared by CEC, 11/23/93. P. 307396-307464. A December 13, 1993, transmittal letter to Mr. Frank Vavra, U.S. EPA, from Mr. Michael O'Brien, Cooper, is attached.
122. Memorandum to Mr. Frank Vavra, U.S. EPA, from Ms. Mindi Snoparsky, U.S. EPA, re: Review and comments concerning the November 23, 1993, Results of Geophysical Survey of Monitoring Wells and Residential Well Sampling, OU2 and OU5, report, 1/6/94. P. 307465-307465.
123. Memorandum to File, from Mr. Frank Vavra, U.S. EPA, re: Information concerning the residential well that contained vinyl chloride above the maximum contaminant level (MCL), 1/21/94. P. 307466-307467.
124. Letter to Mr. Michael O'Brien, Cooper, from Mr. Frank Vavra, U.S. EPA, re: EPA hydrogeologist's review and comments concerning the November 23, 1993, Results of Geophysical Survey of Monitoring Wells and Residential Well Sampling, OU2 and OU5, report, 1/25/94. P. 307468-307469.

125. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Michael O'Brien, Cooper, re: Transmittal of the laboratory test results for the second quarter of sampling residential wells, 3/11/94. P. 307470-307481. The February 25, 1994, laboratory analyses report is attached.
126. Report: Quality Assurance Project Plan for Comparison Sampling at the Osborne Landfill Superfund Site, Mercer County, Pennsylvania, prepared by the U.S. Geological Survey (USGS), 3/28/94. P. 307482-207524.
127. Letter to Mr. Guenter Eickmann, resident, from Mr. Michael O'Brien, Cooper, re: Transmittal of laboratory analyses report for the February 8, 1994 sampling of Mr. Eickmann's residential well, showing that a measurable level of vinyl chloride was detected, 5/9/94. P. 307525-307526. The February 25, 1994, laboratory analyses report is attached.
128. Letter to Mr. William Donnelly, resident, from Mr. Michael O'Brien, Cooper, re: Transmittal of laboratory analyses report for the February 8, 1994, sampling of Mr. Donnelly's residential well, 5/10/94. P. 307527-307528. The February 25, 1994, laboratory analyses report is attached.
129. Letter to Mr. Keith McDougall, resident, from Mr. Michael O'Brien, Cooper, re: Transmittal of laboratory analyses report for the February 8, 1994, sampling of Mr. McDougall's residential well, 5/10/94. P. 307529-307530. The February 25, 1994, laboratory analyses report is attached.
130. Letter to Mr. Charles Dininger, resident, from Mr. Michael O'Brien, Cooper, re: Transmittal of laboratory analyses report for the February 8, 1994, sampling of Mr. Dininger's residential well, 5/10/94. P. 307531-307532. The February 25, 1994, laboratory analyses report is attached.
131. Letter to Mr. Fredrick Kring, resident, from Mr. Michael O'Brien, Cooper, re: Transmittal of laboratory analyses report for the February 8, 1994, sampling of Mr. Kring's residential well, 5/10/94. P. 307533-307536. The February 25, 1994, laboratory analyses report is attached.

132. Letter to Mr. Steve Lazor, resident, from Mr. Michael O'Brien, Cooper, re: Transmittal of laboratory analyses report for the February 8, 1994, sampling of Mr. Lazor's residential well, 5/10/94. P. 307537-307538. The February 25, 1994, laboratory analyses report is attached.
133. Letter to Mr. and Mrs. Timothy Dunn, resident, from Mr. Michael O'Brien, Cooper, re: Transmittal of laboratory analyses report for the February 8, 1994, sampling of Mr. and Mrs. Dunn's residential well, 5/10/94. P. 307539-307540. The February 25, 1994, laboratory analyses report is attached.
134. Letter to Mr. and Mrs. Richard Breese, resident, from Mr. Michael O'Brien, Cooper, re: Transmittal of laboratory analyses report for the February 8, 1994, sampling of Mr. and Mrs. Breese's residential well, 5/10/94. P. 307541-307542. The February 25, 1994, laboratory analyses report is attached.
135. Memorandum to Mr. Frank Vavra, U.S. EPA, from Mr. Michael O'Brien, Cooper, re: Transmittal of laboratory test results from the third quarter of residential well sampling, 6/23/94. P. 307543-307544.
136. Letter to Mr. Ted Buckwalter, USGS, from Mr. Frank Vavra, U.S. EPA, re: Notification of sampling delays due to access problems at the site, and comments concerning the QAPP, 7/7/94. P. 307546-307563. The January 3, 1991, QAPP review and a May 24, 1994, transmittal memorandum to Mr. Frank Vavra, U.S. EPA, from Ms. Mary Ellen Schultz, U.S. EPA, are attached.
137. Letter to Mr. Richard Breese, resident, from Mr. Michael J. O'Brien, Cooper, re: Summary of May 18, 1994, sampling done on Mr. Breese's well, 7/7/94. P. 307564-307565.
138. Letter to Mr. Charles Dininger, resident, from Mr. Michael J. O'Brien, Cooper, re: Summary of May 18, 1994, sampling done on Mr. Dininger's well, 7/7/94. P. 307566-307567.
139. Letter to Mr. William F. Donnelly, resident, from Mr. Michael J. O'Brien, Cooper, re: Summary of May 18, 1994, sampling done on Mr. Donnelly's well, 7/7/94. P. 307568-307570.

140. Letter to Mr. Keith McDougall, resident, from Mr. Michael J. O'Brien, Cooper, re: Summary of May 18, 1994, sampling done on Mr. McDougall's well, 7/7/94. P. 307571-307572.
141. Letter to Mr. Fredrick S. Kring, resident, from Mr. Michael J. O'Brien, Cooper, re: Summary of May 18, 1994, sampling done on Mr. Kring's well, 7/7/94. P. 307573-307575.
142. Letter to Mr. Steve Lazor, resident, from Mr. Michael J. O'Brien, Cooper, re: Summary of May 18, 1994, sampling done on Mr. Lazor's well, 7/7/94. P. 307576-307578.
143. Letter to Mr. Timothy L. Dunn, resident, from Mr. Michael J. O'Brien, Cooper, re: Summary of May 18, 1994, sampling done on Mr. Dunn's well, 7/7/94. P. 307579-307580.
144. Letter to Mr. Guenter Eickman, resident, from Mr. Michael J. O'Brien, Cooper, re: Summary of May 18, 1994, sampling done on Mr. Eickman's well, 7/7/94. P. 307581-307582.
145. Report: Final Focused Remedial Investigation Report for Operable Unit 2, prepared by Cooper, 7/27/94. P. 307583-307795.
146. Letter to Mr. Michael J. O'Brien, Cooper, from Mr. Frank Vavra, U.S. EPA, re: Comments on the Focused Remedial Investigation (RI) report for OU2, 9/29/94. P. 307796-307797.
147. Memorandum to Mr. Frank Vavra, U.S. EPA, from Mr. Robert Burr, U.S. Department of the Interior (U.S. DOI), re: Correspondence on Focused RI Report for Osborne Landfill OU2, 9/21/94. P. 307798-307799.
148. Letter to Mr. Richard Breese, resident, from Mr. Michael O'Brien, Cooper, re: Summary of Mr. Breese well water sampling on September 23, 1994, 11/15/94. P. 307800-307816.
149. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Michael J. OBrien, re: Summary of information on the construction of Monitoring Well CW-2, 1/3/95. P. 307817-307820.

150. Report: Analytical Report, prepared by U.S. EPA, 1/7/95. P. 307821-307851.
151. Memorandum to Mr. Frank Vavra, U.S. EPA from Ms. Cynthia E. Caporale, U.S. EPA, re: Correspondence regarding the EPA Data QA Review, 6/28/95. P. 307852-307900. The June 27, 1995, data validation report for Osborne Dump Site is attached.
152. Report: Groundwater Letter Report, OU2 Mine Void System, Osborne Landfill Site, prepared by CUC, 11/17/95. P. 307901-307911. A November 22, 1995, memorandum to Mr. Richard J. Weinzierl, U.S. EPA, from Mr. Frank Vavra, U.S. EPA, regarding EPA's satisfaction with the Ground Water Letter Report, is attached.
153. Report: Quarterly Groundwater Monitoring Report, March-May, 1997, OU1 Osborne Landfill Site, Pine Township, Pennsylvania, prepared by CUC, 6/26/97. P. 307912-308071.
154. Report: Organic Analytical Sample Results, prepared by the U.S. EPA, (undated). P. 308072-308074.
155. Site Location map, Osborne Landfill Site, Operable Unit 2 Feasibility Study, prepared by Civil & Environmental Consultants, Inc. (CEC), 4/23/97. P. 308075-308081. Six figures showing regional ground water direction of flow, which support the Record of Decision (ROD), are attached.
156. Report: Quarterly Groundwater Monitoring Report, March-May 1997, Operable Unit 1, Osborne Landfill Site, Pine Township, Pennsylvania, prepared by CEC, 6/26/97. P. 308082-308241.
157. Facsimile to Mr. Frank Vavra, U.S. EPA, from Mr. Richard Weinzierl, Cooper Energy Services, re: Clarification of which type of analysis procedure U.S. EPA requires, 8/18/97. P. 308242-308242.
158. Facsimile to Mr. Frank Vavra, U.S. EPA, from Mr. Richard Weinzierl, Cooper Energy Services, re: Results of Mr. Weinzierl's discussion with Township Supervisor, Mr. Tom Paxton, about Pine Township's institutional controls on ground water issues, 8/22/97. P. 308243-308243.

159. Letter to Mr. Eickmann, resident, from Mr. Richard Weinzierl, Cooper Energy Services, re: Transmittal of results for the water sample collected from Mr. Eickmann's well, 8/25/97. P. 308244-308246. A May 1, 1997, Method 524.2 Volatile Organics Table is attached.
160. Report: Quarterly Groundwater Monitoring Report June-August 1997, Operable Unit 1, Osborne Landfill Site, Pine Township, Mercer County, Pennsylvania, prepared by CEC, 9/29/97. P. 308247-308329.
161. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Jeffery McKee, Borough of Grove City, re: Transmittal of ground water analytical results, 10/3/97. P. 308330-308340. Several February 21, 1997, Analytical Reports and a February 24, 1997, chain of custody record are attached.
162. Report: Third Quarter Supplemental Groundwater Monitoring Report, Operable Unit 1, Osborne Landfill Site, Pine Township, Mercer County, Pennsylvania, September 1997, prepared by CEC, 11/14/97. P. 308341-308432.
163. Memorandum to Mr. Frank Vavra, U.S. EPA, from Mr. Jeffrey Woodcock, CEC, re: Transmittal of figures from the 1989 Remedial Investigation (RI) showing the approximate location of the slurry wall and comments of the location of the slurry wall, 11/26/97. P. 308433-308437. A November 25, 1994, final design map and an undated geologic layer profile, Figure 3-5 from the 1989 RI, are attached.
164. Letter to Ms. Sharon Shutler, National Oceanic and Atmospheric Administration/Office of General Counsel (NOAA/OGC), from Mr. Frank Vavra, U.S. EPA, re: Notification that U.S. EPA plans to issue a ROD in December 1997 for the remaining Operable Units 2, 4, and 5, 12/2/97. P. 308438-308439.
165. Letter to Mr. Anthony Conte, U.S. Department of the Interior (U.S. DOI), from Mr. Frank Vavra, U.S. EPA, re: Notification that U.S. EPA plans to issue a ROD in December 1997 for the remaining Operable Units 2, 4 and 5, 12/2/97. P. 308440-308441.

166. Report: Annual Report, Groundwater Monitoring Report, Operable Unit 1, Osborne Landfill Site, Pine Township, Mercer County, October 1997, prepared by CEC, 12/11/97. P. 308442-308536.
167. Record of Decision, Osborne Landfill Site, Operable Units 2,4 and 5, Mercer County, Pennsylvania, 12/30/97. P. 308537-308649.
168. Letter to Mr. Abraham Ferdas, U.S. EPA, from Mr. Craig Lobins, PADEP, re: Notification that PADEP has reviewed the December 30, 1997, ROD and that PADEP concurs with EPA's selected remedy at the site, 12/30/97. P. 308650-308651.
169. PADEP Request for Determination of Requirement for Plan Approval/Operating Permit Application (Submit in Triplicate), 11/27/95. P. 308652-308656. A November 13, 1995, transmittal letter to Mr. Robert Huston, PADEP, from Mr. Richard Weinzieri, Cooper Energy Services, and a November 9, 1995, unsigned copy of the request form are attached.
170. Report: Performance of OUL Remedial Action, Osborne Landfill Site, prepared by CEC, 3/17/98. P. 308657-308677.
171. Report: Health Consultation, Osborne Landfill, Grove City, Mercer County, Pennsylvania, CERCLIS No. PAD980712673, prepared by ATSDR, 7/9/98. P. 308678-308696. A July 29, 1998, memorandum to Mr. Frank Vavra, U.S. EPA, from Mr. Charles Walters, U.S. EPA, transmitting the health consultation conducted in response to an EPA request to evaluate the historical threat to residents from ground water contaminated with vinyl chloride, is attached.
172. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Robert Kimball, PADEP, re: Concurrence with the proposed Explanation of Significant Differences (ESD) to the September 28, 1990, ROD and the proposed ESD to the December 30, 1997, ROD, 7/29/98. P. 308697-308699.

173. Explanation of Significant Differences regarding the September 28, 1990, ROD, Osborne Landfill Site, 8/24/98. P. 308700-308706. The September 28, 1990, ROD** is attached.
174. Explanation of Significant Differences regarding the December 30, 1997, ROD, Osborne Landfill Site, 8/24/98. P. 308707-308712. The December 30, 1997, ROD*** is attached.

** Please see pages 304842 through 304932 to view the Osborne Landfill ROD.

*** Please see pages 308537 through 308649 to view the Osborne Landfill ROD for OU2, OU4, and OU5.

V. COMMUNITY INVOLVEMENT/CONGRESSIONAL CORRESPONDENCE/IMAGERY

1. Aerial Photograph, 7/28/84. P. 500001-500001.
2. Aerial Photograph, 7/28/84. P. 500002-500002.
3. Report: Draft Community Relations Plan, Osborne Landfill Site, Pine Township, Pennsylvania, prepared by Booz, Allen & Hamilton Inc., 7/21/88. P. 500003-500045. The following are attached:
 - a) a report entitled "Information on Grove City Public Water Supply";
 - b) the handwritten notes regarding public affairs issues;
 - c) a marked-up copy of a list of interested parties for the Osborne Landfill Site.
4. Report: Final Draft Community Relations Plan, Osborne Landfill Site, Pine Township, Pennsylvania, prepared by CDM Federal Programs Corporation, 8/24/89. P. 500046-500075.
5. Memorandum to Mr. Hamid Saebfar, U.S. EPA, from Mr. Edward Shoener, U.S. EPA, re: Notice letters for Osborne Dump, 12/17/82. P. 500076-500076.
6. Letter to Mr. Thomas C. Voltaggio, U.S. EPA, from Mr. Edgar A. Bircher, Cooper Industries, Inc., re: Remedial measures, 4/28/83. P. 500077-500079.
7. Report: Final Title Report, Osborne Landfill, prepared by CDM, 4/10/89. P. 500080-500144.
8. Report: Final Draft Community Relations Plan, Osborne Dump Site, prepared for U.S. EPA, 8/24/89. P. 500145-500174.
9. Letter to Mr. John Claussen, General Electric Corp., from Mr. Stephen R. Wassersug, U.S. EPA, re: Notice of potential responsibility, 9/8/89. P. 500175-500180. A copy of the letter and a certified mail receipt are attached.
10. Letter to Mr. John Burnstein, Castle Iron & Metals Co.,

from Mr. Stephen R. Wassersug, U.S. EPA, re: Notice of potential responsibility, 9/8/89. P. 500181-500186. A copy of the letter and a certified mail receipt are attached.

11. Letter to Mr. Edwin H. Bircher, Cooper Industries, Inc., from Mr. Stephen R. Wassersug, U.S. EPA, re: Notice of potential responsibility, 9/8/89. P. 500187-500192. A copy of the letter and a certified mail receipt are attached.
12. Letter to Mr. Thomas F. Davis, Ashland Chemical Co., from Mr. Stephen R. Wassersug, U.S. EPA, re: Notice of potential responsibility, 9/8/89. P. 500193-500197. A copy of the letter is attached.
13. Osborne Landfill Superfund Site Public Meeting Response Card from Mrs. Kris Lambert to Ms. Barbara Brown, U.S. EPA, 9/14/89. P. 500198-500228. Nineteen additional Response Cards from the following are attached:
 - a) Mr David J. Berry;
 - b) Mr. Paul J. Shimek;
 - c) Mr. Thomas C. Ponceroff;
 - d) Ms. Betty Lingle;
 - e) Mr. Lee McCoy;
 - f) Ms. Nancy J. Parker;
 - g) T.W. Kearns;
 - h) Chris Wright;
 - i) Mr. Jerry D. Weis;
 - j) Ms. Darla Royer;
 - k) Mr. Michael Orange;
 - l) A.K. Rao;
 - m) Ms. Roxann Sansotta;
 - n) Mr. Bill Ryan;
 - o) Mr. Michael Orange (duplicate);
 - p) Ms. Darla Royer (duplicate).
14. U.S. EPA Region III Public Information Meeting for the Osborne Landfill Superfund Site list of meeting attendees, 9/14/89. P. 500229-500238.
15. Transcript of Public Meeting, re: Osborne Landfill Superfund Site, 9/14/89. P. 500239-500315.
16. Handwritten sign-in sheet for meeting with local officials, Osborne Landfill Site, 9/14/89. P. 500316-

500316.

17. Memorandum to Mr. Stephen R. Wassersug, U.S. EPA, from Mr. Thomas C. Voltaggio, U.S., EPA, re: Special notice letters, 10/10/89. P. 500317-500317.
18. Letter to U.S. EPA Region III, from Mr. Charles W. Smith, re: Proposals for cleanup, 10/13/89. P. 500318-500318.
19. Handwritten notes from PRP-requested meeting to organize a steering group, 10/13/89. P. 500319-500320.
20. Notes from meeting requested by Cooper Industries, Inc. to determine if additional PRP's will participate in the remedial design/remedial action at the Osborne Superfund Site, 10/13/89. P. 500321-500321.
21. Letter to U.S. EPA, Region III from Mr. Joseph and Janice Kopnisky, re: Questions about EPA site plans, 10/15/89. P. 500322-500322.
22. Handwritten notes on Congressman Ridge's Office, 10/17/89. P. 500323-500323.
23. Handwritten letter from Mr. and Mrs. Walter Sloan and Family, re: Site cleanup, 10/21/81 [sic]. P. 500324-500330. The following are attached:
 - a) an envelope;
 - b) a routing slip;
 - c) a copy of the letter;
 - d) a copy of the 10/13/89 letter from Mr. Charles W. Smith.
24. Newspaper article entitled, "Unless Somebody Listens to Reason, We'll Have to Spend \$100 Million to Solve a Problem that ISN'T," Grove City Allied News, 10/25/89. P. 500331-500331.
25. Routing and Transmittal Slip to Mr. Tom Voltaggio, Mr. Roy Schrock, and Mr. Frank Varva from Mr. Don Welsh, re: Letter from Pennsylvania Chamber of Commerce,

- 10/31/89. P. 500332-500336. The letter is attached.
26. Meeting on Osborne Landfill-Mercer County list of participants, 11/2/89. P. 500337-500337.
 27. Report: Meeting Summary for the Proposed Remedial Action Plan at the Osborne Landfill Superfund Site, prepared by Booz, Allen & Hamilton, Inc., 11/9/89. P. 500338-500349.
 28. Letter to Ms. Nancy Breese from Mr. Frank Vavra, U.S. EPA, re: Quality of well water, 11/28/89. P. 500350-500350.
 29. Letter to Mr. and Mrs. Kopnisky from Mr. Frank Vavra, U.S. EPA, re: Information concerning Osborne remedial alternative, 11/28/89. P. 500351-500353.
 30. Letter to U.S. EPA Region III from Mr. Charles Flynn, re: Letter to PADER, 12/12/89. P. 500354-500355. The letter is attached.
 31. Routing and Transmittal Slip to Mr. Frank Vavra from Kim, re: Outgoing Cong. [sic] file, 1/11/90. P. 500356-500362. The following are attached:
 - a) a copy of a routing slip;
 - b) a letter concerning Cooper-Bessemer Industries remedial action;
 - c) a meeting participant list;
 - d) a letter concerning an Osborne Landfill meeting.
 32. Letter to Mssrs. Harold E. Bell, Joseph F. Fragle, and William M. Reznor, from Mr. Edwin B. Erickson, re: Financial effects on the Grove City community, 2/26/90. P. 500363-500367. A letter concerning support of Cooper-Bessemer cleanup effort and a letter concerning financial effects on the Grove City community are attached.
 33. Correspondence Control Slip from Mr. John Heinz, re: Cooper Reciprocating/Osborne Landfill, 3/5/90. P. 500368-500373. The following are attached:

- a) a routing slip;
 - b) a control slip of the office of congressional correspondence;
 - c) a letter concerning the attached communication;
 - d) a letter concerning the Cooper reciprocating action;
 - e) a newspaper article regarding the Osborne Plan.
34. Letter to the Honorable John Heinz, U.S. Senate, from Mr. Guerne DeJones for Mr. Edwin B. Erickson, re: Cooper reciprocating's liability, 3/16/90. P. 500374-500375.
35. Routing slip to Ms. Kim Lonasco from Mr. Arlen Spector, re: Response for R.A.'s signature, 3/19/90. P. 500376-500386. The following are attached:
- a) a control slip for the office of congressional correspondence;
 - b) a letter concerning U.S. EPA remedial alternative for Osborne Landfill;
 - c) a second copy of the letter concerning U.S. EPA remedial alternative for Osborne Landfill;
 - d) a letter regarding a concerned citizen;
 - e) a letter concerning the controversy of the Osborne Landfill;
 - f) a newspaper article;
 - g) a third copy of the letter concerning U.S. EPA remedial alternative.
36. Letter to Mr. Robert W. Teets from Mr. Stephen R. Wassersug, U.S. EPA, re: Concerns about proposed plans for remediation, 5/17/90. P. 500387-500393. A copy of the letter and a letter concerning failed communications are attached.

37. Letter to the Honorable Howard Fargo, Pennsylvania House of Representatives, from Mr. Stephen R. Wassersug, U.S. EPA, re: Remediation of the Osborne Superfund Site, 5/17/90. P. 500394-500399. A copy of the letter and a letter concerning a slurry wall and dewatering system remedy are attached.
38. Routing and transmittal slip to Mr. Frank Vavra from Kim, re: Outgoing cong. [sic] for file, 5/24/90. P. 500400-500412. The following are attached:
- a) a routing slip;
 - b) a letter concerning the remediation of the Osborne Site;
 - c) a second copy of the letter;
 - d) a letter concerning a remedy for the Osborne Site;
 - e) a letter addressing the viability of a slurry wall;
 - f) a letter regarding U.S. EPA consideration of Cooper Industries' proposed remedy.
39. Fact Sheet, Osborne Landfill, Grove City, PA, (undated). P. 500413-500422.
40. U.S. EPA Fact Sheet, re: Proposed Remedial Action Plan, Osborne Dump Superfund Site, Pine Township, Mercer County, Pennsylvania, 8/97. P. 500423-500426.
41. Public Meeting Transcript, Osborne Landfill Superfund Site, Operable Units 2,4 and 5, Pine Township, Mercer County, Pennsylvania, 8/25/97. P. 500427-500607.
42. Letter to Mr. Patrick Gaughan, U.S. EPA, from Mr. Richard Ehmann, Richard Ehmann, re: Request by members of Citizen's Environmental Association of the Slippery Rock Area (CEASRA) that the public comment period be extend 30 days after the provision of a new set of the documents recording the water quality monitoring data, 8/31/97. P. 500608-500608.

43. Letter to Mr. Frank Vavra, U.S. EPA, from Ms. Ann Stillwagon, resident, re: Disagreement with how the meeting for the proposed plan was handled, disapproval of how well water sampling has been handled at her house, and request for reassurance that residences are safe, 9/1/97. P. 500609-500609.
44. Letter to Mr. Peter Schaul, U.S. EPA, from Ms. Elizabeth Lingle, CEASRA, re: Request for an official extension of the public comment period due to the fact that some volumes were missing from the Administrative Record File at the Grove City Area Library, 9/2/97. P. 500610-500610.
45. Handwritten letter to Mr. Frank Vavra, U.S. EPA, from Ms. Hilda A. Kring, resident, re: Request for future well monitoring testing to determine if the EPA project is working, 9/8/97. P. 500611-500611.
46. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. John C. Hempel, EEI Geophysical, re: Concerns regarding EPA's knowledge of the contamination at the site and questions and comments prepared by Mr. Hempel upon obtaining additional information about the site, 9/24/97. P. 500612-500617.
47. Letter to Mr. Frank Vavra, U.S. EPA, from Mr. Fred J. Brenner and Ms. Patricia E. Brenner, Water Analysis Consultants, re: Suggestion that EPA consider sampling entire water profile of the lake at Kring's and that EPA sample several more residences quarterly or semi-annually in order to allay public concern, 10/1/97. P. 500618-500618.
48. Letter to Mr. Frank Vavra, U.S. EPA, from Ms. Shirley M. Donan, North West District Department of Environmental Protection Roundtable, re: Disapproval of how the cleanup is being handled and concern for citizens' health and welfare, 10/2/97. P. 500619-500620.
49. Letter to Mr. Frank Vavra, U.S. EPA, from Ms. Jane Scott Cleary, CEASRA, re: Dissatisfaction with the fact that information necessary to comment on the remediation plan was not available, disapproval of the proposed plan, and request for certain improvements in the monitoring plan, 10/6/97. P. 500621-500621.
50. U.S. EPA Public Meeting Notice, Osborne Landfill Superfund Site, re: Meeting to be held August 25,

1997, to discuss the Proposed Remedial Action Plan, (undated). P. 500622-500622.

51. U.S. EPA Public Notice, Osborne Landfill Superfund Site, re: Announcement of the Proposed Remedial Action Plan for the site, dates of the public comment period, and a public meeting to address comments on August 25, 1997, (undated). P. 500623-500623.
52. U.S. EPA Public Meeting Notice, Osborne Landfill, re: Directions to the meeting hall, (undated). P. 500624-500624.